

[Catalyst](#)[Journal of Transport & Land Use](#)[Freight and Logistics E-News](#)[Videos](#)[Annual Reports](#)[Research Reports](#)[Research Summaries](#)[Proceedings](#)[Library Services](#)[Subscribe to Newsletters & Announcements](#)[Order Publications](#)

Freight and Logistics E-News, November 2013 (Vol. 11, No. 3)

[Current Issue](#) | [Previous Issues](#) | [Subscribe](#)

- [17th Annual Freight and Logistics Symposium scheduled for Dec. 6](#)
- [October MFAC meeting focuses on freight infrastructure](#)
- [Freight transportation aids state's economic competitiveness](#)
- [Researchers look to hydrous ethanol to improve efficiency and reduce emissions of diesel engines](#)
- [MAFC Best Practice Series webinars](#)
- [FHWA 'Talking Freight' seminars](#)
- [More news and information](#)

17th Annual Freight and Logistics Symposium scheduled for Dec. 6

The gravity of logistics is defined by the seamless and uninhibited flow of goods toward demand from manufacturers and markets. Mobility, a basic building block for growing the economy, depends on infrastructure that can support and sustain economic growth.

At this year's Freight and Logistics Symposium on December 6 at the [Ramada Plaza Minneapolis](#), public, private, and academic professionals will discuss strategies to maintain the existing transportation infrastructure in Minnesota and the region. They also will discuss public- and private-sector perspectives on successes and challenges to the current supply chain.



In the keynote presentation, Rosalyn Wilson will highlight the 24th annual *State of Logistics Report* published by the Council of Supply Chain Management Professionals (CSCMP). Wilson is a senior business analyst at Delcan Corporation and the author of this year's report. The annual report is widely used by supply chain management professionals as the premier benchmark for logistics activity in the United States.

The event is sponsored by the University of Minnesota Center for Transportation Studies in cooperation with the Minnesota Department of Transportation, the Minnesota Freight Advisory Committee, the Council of Supply Chain Management Professionals—Twin Cities Roundtable, the Metropolitan Council, and the Transportation Club.

More information about the symposium, including registration, is available on the [event web page](#). You may also contact Shawn Haag, 612-625-5608, haag0025@umn.edu.



October MFAC meeting focuses on freight infrastructure

As part of an ambitious national initiative to double exports within five years, Minnesota could benefit significantly as the result of the growth needed to support the plan, according to Mark Toth, administrator of the Greater Metropolitan Area Federal Trade Zone Commission. Toth was one of several speakers at the quarterly Minnesota Freight Advisory Committee (MFAC) meeting in October, which focused mainly on the development of freight infrastructure in the region.

"In the next 20 years, 87 percent of the growth of the world economy is actually going to be outside of the United States," he said. "Infrastructure is definitely key to part of this national export plan."

Toth, moderating a panel on import and export initiatives, described some possible changes ahead in the Twin Cities, including more intermodals to handle increased need, expanded rail yards, more airfreight, more jobs, and more warehouse space. "Every international shipment touches the domestic system," Toth explained. "If you have an international shipment, it's not going to get to its final destination unless it goes on our networks."

Two thriving Minnesota industries—agriculture and medical device manufacturing—have been identified as key pieces of the national export initiative in the state. Christina Connelly, international trade program manager with the Minnesota Department of Agriculture, and Bruce Abbe, executive director of the Midwest Shippers Association, also



participated in the import/export panel.

Connelly, who works with food and ag companies to export their products, noted that 95 percent of the purchasing power in the world is outside of the United States. "Only 1 percent of U.S. companies export," she said. "There's a huge opportunity out there."

Minnesota is the sixth largest state exporting agriculture goods, Connelly added. "Quite a lot of what our farmers produce goes outside of our borders, and you can see that's really ramped up over the years."

Abbe emphasized the importance of understanding the global trade infrastructure and developing a diverse multimodal system for Minnesota to be competitive. "We really are in a global economy," he said, "and Minnesota needs to look at all of these components and have a true multimodal service."

Richard Murphy Jr., president and CEO of Murphy Companies, moderated a second panel on the role of warehousing in transportation. "The average legislator has absolutely no idea what this segment of the industry does," Murphy said. "For every dollar that is spent in the U.S., \$3.80 is spent moving it."

Drew Greenberg, president of Newport Cold Storage; Sharon Daniels, owner of G.R. Daniels Trucking, Inc.; and Steve Yockey, vice president of client relations for Distribution Alternatives, participated in the panel discussion about the role of warehousing.

The meeting concluded with a presentation about a recently completed pilot study aimed at improving communication between transportation organizations and manufacturers in District 8 of the Minnesota Department of Transportation (MnDOT). Frank Douma, research fellow and associate director at the University of Minnesota Humphrey School of Public Affairs, and Donna Koren, market research director at MnDOT, discussed the study findings.

The pilot project, conducted jointly by MnDOT, the Humphrey School, and the University of Minnesota Extension, focused on 12 counties in southwest Minnesota that make up MnDOT District 8. The research team began by identifying key industry clusters within the region; industry clusters have been shown to be driving economic forces because they sell outside the local, state, and national market—bringing money into the region and creating jobs in other economically dependent industries such as retail and food service. Ultimately, more than 172 regional businesses were contacted for participation in this project, and 75 in-person interviews were completed with manufacturers, shippers, and carriers.

The Minnesota Freight Advisory Committee (MFAC) is a partnership between government and business to exchange ideas and recommend policy and actions that promote safe, productive, and sustainable freight transportation in Minnesota. MFAC consists of representatives from Minnesota's shipper and carrier communities as well as a variety of other interested organizations, and provides advice to the Minnesota Department of Transportation (MnDOT) and the Metropolitan Council regarding freight issues and investments.

Freight transportation aids state's economic competitiveness

Freight transportation is vitally important to jobs and economic competitiveness in Minnesota. The value of freight rail, however, "is under-recognized in comparison to other modes of transportation," according to Lee Munnich. "Public perception often leans against freight rail due to its behind-the-scenes benefits but visible nuisances."

Munnich, a senior fellow with the University of Minnesota Humphrey School of Public Affairs, and researcher Tom Horan shared interim findings from a two-year project about transportation policy and economic competitiveness during a September 20 forum in Minneapolis. The research project is exploring ways to understand and enhance the value of freight transportation—particularly freight rail—to the Minnesota economy, local communities, and the surrounding region.

Through data analysis and interviews with national and regional experts, the researchers found that freight rail plays a vital role for key Minnesota industries. For example, growth in Minnesota's Gross State Product has been stronger than the national average each year during the economic recovery in several key industries dependent on rail: agriculture, mining, and manufacturing.

The forum also included perspectives from public- and private-sector leaders. Matt Rose, chairman and CEO of BNSF Railroad, stressed the importance of efficient freight networks in enabling U.S. workers to compete in the world market. U.S. Sen. Amy Klobuchar emphasized the importance of exports for economic growth. The diversity of Minnesota's economy, she said, helped us "keep our head above water" during the economic downturn—and the common thread among those diverse industries is exports.

Two panel discussions at the forum featured businesses and local policymakers. Several participants noted the need to maintain our current competitive edge with other countries. In conclusion, former U.S. Rep. Jim Oberstar, said, "Unless we resolve nationally to make a greater focus on freight and understand its role in our national economy, we're not going to be competitive in the international marketplace."

Related resources:

- [Research project page](#) (with video of September 20 forum presentations)
- [Lee Munnich and Tom Horan presentation slides from September 20 forum](#)
- [Forum: freight transportation aids state's economic competitiveness](#) (CTS)



Lee Munnich with a panel of Minnesota leaders at the September 20 freight forum



Former U.S. Rep. Jim Oberstar, U.S. Sen. Amy Klobuchar, and Matthew Rose

Researchers look to hydrous ethanol to improve efficiency and reduce emissions of diesel engines

Nearly all corn-based ethanol produced in the United States is anhydrous, meaning that it contains less than a half-percent water by volume. However, the distillation and drying processes required to remove the water from ethanol consume a great deal of energy.

University of Minnesota mechanical engineering assistant professor Will Northrop and professor David Kittelson are investigating a more efficient alternative: the use of hydrous, or wet, ethanol, which contains more water. Not only does hydrous ethanol require less energy to produce, but it can also result in reduced emissions of nitrogen oxides (NOx) and soot when used in diesel engines.

Northrop and Kittelson are conducting two projects examining the use of hydrous ethanol in diesel engines. The first uses an engine system that would need to be implemented by original equipment manufacturers, and the second is exploring the potential for aftermarket systems.

In the first project, the researchers are using hydrous ethanol in a dual-fuel diesel engine that uses a combustion method called reactivity-controlled compression ignition (RCCI). In an engine using RCCI, the ethanol and diesel fuel are mixed directly in the combustion chamber. Unlike other approaches for using ethanol in diesel engines, RCCI allows ethanol to be the primary fuel source for the engine, thereby reducing harmful exhaust emissions.

In the second project, the researchers are examining aftermarket systems that could be used to retrofit a range of older diesel engines to use hydrous ethanol. As part of the project, the researchers are partnering with CleanFlex Power Systems, a Nebraska-based company that has developed a dual-fuel aftermarket system allowing diesel engines to use hydrous ethanol.



Related resources:

- [Research project page](#)
- [CleanFlex Power Systems website](#)
- [Increasing efficiency, reducing emissions with hydrous ethanol in diesel engines](#) (CTS Catalyst, October 2013)

MAFC Best Practice Series webinars

Upcoming topics and dates for the Best Practice Series webinars from the Mid-America Freight Coalition (MAFC) are listed on the [MAFC website](#).

- **December 13, 2013**
[Institutionalization of Freight](#), 10:00–11:30 a.m. (Central)

FHWA 'Talking Freight' seminars

Upcoming topics and dates for the "Talking Freight" online seminars from the Federal Highway Administration (FHWA) are listed on the [Talking Freight website](#).

- **December 6, 2013**
[An Overview of the Draft Primary Freight Network](#), 2:00–3:30 p.m. (Eastern)

More news and information

The [American Transportation Research Institute \(ATRI\)](#) published the findings of its latest analysis of the operational and economic impacts resulting from the new hours-of-service (HOS) rules, which went into effect July 1, 2013. The changes to the hours-of-service rules implemented by the Federal Motor Carrier Safety Administration (FMCSA) include provisions that limit use of the 34-hour restart and require a rest break before driving after 8 hours on-duty. The operational and economic impacts identified by ATRI include that more than 80 percent of motor carriers surveyed have experienced a productivity loss since the new rules went into effect, with nearly half stating that they require more drivers to haul the same amount of freight. In addition, 82.5 percent of commercial drivers surveyed by ATRI indicated that the new HOS rules have had a negative impact on their quality of life, with more than 66 percent indicating increased levels of fatigue. The affect on driver wages for all over-the-road drivers total \$1.6 billion to \$3.9 billion in annualized loss. ATRI's analysis is based on industry survey data of more than 2,300 commercial drivers and 400 motor carriers as well a detailed analysis of logbook data representing more than 40,000 commercial drivers. A copy of this report is available from [ATRI](#).



Recently published freight-related research from the Transportation Research Board (TRB):

- [Guidebook for Developing Subnational Commodity Flow Data](#) (October 2013)
- [Transportation for Communities: Advancing Projects through Partnerships](#) (October 2013)

More upcoming events:

- **January 14-16, 2014**
[National Maritime Strategy Symposium](#)
Washington, DC
- **June 1–5, 2014**
[PIANC World Congress](#)

Comments?

We would like to hear what you think of *CTS Freight & Logistics E-News*. Please e-mail us at cts@umn.edu.

Center for Transportation Studies

Director: Laurie McGinnis

Associate Director, Engagement and Education: Gina Baas

Director of Digital Information and Library Services: Arlene Mathison

Editor: [Michael McCarthy](#)

Contributing Writers: Christine Anderson, Pam Snopl, Megan Tsai

Center for Transportation Studies

University of Minnesota

511 Washington Ave. S.E.

Minneapolis, MN 55455

612-626-1077

612-625-6381 (fax)

www.cts.umn.edu

Subscribe/Unsubscribe

Those who receive this newsletter have expressed interest in CTS programs and services or receive other CTS publications.

To receive this newsletter by e-mail, please use the online [subscription form](#). If you know of others who may be interested in this newsletter, please forward this page to them.

If you wish to be removed from our e-mail distribution list for this newsletter, please use the online [unsubscribe form](#).



Center for Transportation Studies
University of Minnesota
200 Transportation & Safety Building

511 Washington Ave SE
Minneapolis, MN 55455
Phone: 612-626-1077

Fax: 612-625-6381
E-mail: cts@umn.edu
[Location & Contact Information](#)